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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,072	10/02/2003	Yojiro Matsueda	117391	7778
25944 7590 02/28/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER BUDD, PAUL A	
			ART UNIT	PAPER NUMBER
			2815	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/28/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/676,072

Applicant(s)

MATSUEDA ET AL.

Examiner

Paul A. Budd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 16 and 17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,6-8 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 3-5, 9-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :2/16/06,10/4/05,7/12/05,10/23/03.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I in the reply filed on 26 January 2007 is acknowledged. The traversal is on the ground(s) that "the subject matter of all claims 1-17 is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims". This is not found persuasive because, as previously documented, the class/subclass searches for the device versus method do not overlap and are complementary which is what places the burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On line 4 of claim 9 recites the limitation "the data lines". There is insufficient antecedent basis for the use of "the". For the purposes of examination the limitation "data lines" will be used. Additionally, on lines 10-12 Claim 9 recites the limitation "first resistances connected between the terminals adjacent one another; and second resistances connected between the terminals". Firstly, it appears that both "the

first resistance" and the "second resistance" are formed in the same place. None of the applicant's drawings enables such a structure where two resistances are formed between any two terminals. The drawings enable different resistances formed between different terminals as in figures 5 and 6 but the drawings do not enable two resistances formed between the same terminals. It is not known from "first resistances connected between the terminals adjacent one another; and second resistances connected between the terminals" what or which terminals are being referred to, such as: 1) all terminals, 2) data line terminals, 3) control signal terminals, 4) electric power terminals, or 5) some mixture of 1,2,3,4. It is also unknown *what* terminals are "adjacent" one another (such as: data line terminals, control signal terminals, electric power terminals). The claim is indefinite as to the structure being claimed and what terminals are adjacent one another and where the "first resistance" and "second resistance" exist with respect to the terminals. For the purposes of examination the Office will guess that the applicant intended to mean, "first resistances connected between the terminals adjacent one another; and second resistances connected between the terminals and the common electrode line". This assumption is most consistent with dependent claim 11's language. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 recites "The circuit substrate according to Claim 9, *in the event* that any of the terminals are connected to both the first resistance and the second resistance, the first resistance having a resistance value greater than the second resistance". It is unclear what the structure being claimed is. The term "in the

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event" is indefinite because the applicant appears to be unsure as to whether or not any (none) or all of the terminals are connected to both resistances or what terminals have both of these resistances connected to them. This all appears to contradict claim 9 which requires both resistances to be connected between "the terminals". For the purposes of examination claim 10 will be examined as "The circuit substrate according to Claim 9, wherein the terminals are connected to both the first resistance and the second resistance, the first resistance having a resistance value greater than the second resistance".

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 is currently indefinite because of its dependency on claims 9 and 10. Claim 11 might possibly not require any changes if the changes to the claim language for claims 9 and 10 are resolved to be consistent with claim 11.

### ***Claim Objections***

3. Claim 1 objected to because of the following informalities:

On line 9 of claim 1 change "one resistance" to - -the one resistance- -,

On line 9 of claim 2 change "one resistance" to - -the one resistance- -,

On line 10 of claim 3 change "one resistance" to - -the one resistance- -,

On line 3 of claim 6 change "terminal" to - -terminals- -.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 3-5 are rejected under 35 U.S.C. 102 (b) as being anticipated by Whitney (US Patent (6,211,554).

Regarding claim 3, Whitney teaches circuit substrate [10], comprising:

a substrate [FIG. 4, 10];

a common electrode line [30] formed on a perimeter [see FIG. 4] of the substrate [10];

a plurality of terminals [25] formed on the substrate [10]; and

at least one resistance [material 35 formed in space 25a, column 4, lines 55-68] formed between the terminals [25] and the common electrode line [30];

the plurality of terminals [25] including analog terminals [25, Left Hand Side] connected to analog signal lines to supply analog signals, and digital terminals [25, Right Hand Side] connected to digital signal lines to supply digital signals; and the one resistance [material 35 in space 25a] connected to the analog terminal [25 LHS] having a resistance value greater [column 4 lines 64-65, "relatively high electrical

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resistance"] than another resistance [the resistance of the wires leading to the "digital terminals"] connected to the digital terminal [25 RHS].

The labels "analog terminals" and "digital terminals" are only labels and do not distinguish over the structure taught by Whitney. The labels in and of themselves do not distinguish over the structure taught by Whitney. It is only when structural features are additionally connected with these labels (as in other claims) that a claimed structure can distinguish over Whitney's structure. In claim 3 since there are NO structural differences between the first terminals (analog) and second terminals (digital) thus it is appropriate to select any terminals as "analog" and any other terminals as "digital". The limitations "analog signal lines" and "digital signal lines" are also subject to the above lack of distinction. They will be treated as first and second lines that have no structural differences within claim 3's language.

The limitations "to supply digital signals" and "to supply analog signals" are intended use and *do not* add any further limitations to the claim. Intended use of a structure does not distinguish over the structure taught by Whitney. Thus, these intended use limitations are subject to *In re Pearson*, 494 F.2d 1399, 181 USPQ 641 (CCPA 1974) where intended use does not avoid prior use.

Regarding claim 4, Whitney teaches a circuit substrate [10], comprising:

a substrate [10];

a common electrode line [30] formed on a perimeter [see FIG. 4] of the substrate [10];

a plurality of terminals [25] formed on the substrate [10];

at least one first resistance [On column 5, lines 13-25 Whitney teaches the option where the material 35 is located so that "each I/O pad 25 could be connected to the guard rail 30 with a separate body of voltage material 35"; therefore the first resistance is formed between the pads (terminals) in the absence of material 35] formed between the terminals [25] adjacent one another; and

at least one second resistance [this is the resistance of material 35 filling the space 25a] formed between the terminals [25] and the common electrode line [30].

Regarding claim 5, Whitney teaches the circuit substrate according to Claim 4, the terminal [25] being connected to both the first resistance [as above (claim 4)] and the second resistance [as above]; and the first resistance having a resistance value greater than the second resistance [The resistance in the presence of material 35 is less than the resistance between the pads which is absent of material 35. In column 5 lines 40-50 Whitney teaches how the conduction from an EOS/ESD event is from the pad to rail and not pad to pad which means that R1 is inherently greater than R2) ].

***Allowable Subject Matter***

5. Claims 1, 2, 6-8, 13-15 are allowed. No prior art was found to reject the Claims 9-12 as best understood as documented within the 112(2<sup>nd</sup>) rejections.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Waggoner (US Patent 5,917,220), Possin et al. (US Patent 5,736,732) and Tan et al. (US Patent 5,991,134). Also see attached 892 form for these pertinent art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Budd whose telephone number 571-272-8796. The examiner can normally be reached on Monday to Friday 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JEROME JACKSON  
PRIMARY EXAMINER